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6.

TREATMENT OF CANCER OF THE CERVIX OF THE UTERUS COMPLICATED BY PREGNANCY.[1]

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If I am correct in interpreting the motive of our excellent host in inviting me to be present at this meeting of your honorable body, as an expression of his desire to afford me the opportunity of enjoying his hospitality and your good-fellowship, and not as dictated by those considerations which vanity might suggest, then this paper is to be regarded as scarcely more than a mere formality—a passport entitling me to entrance upon these coveted pleasures.

I have selected the subject announced in the title as one in which obstetrician and surgeon must be alike interested. In view both of the increased gravity of cancer of the cervix of the uterus when complicated by pregnancy, and of the many considerations which must, in most instances, be taken into account in deciding upon the proper treatment, there is probably no class of cases which demands greater accuracy in observation, wisdom in interpretation, and skill in management. It has, therefore, been somewhat of a surprise to me to find the question so briefly and unsatisfactorily dealt with in the treatises at my disposal. This was one consideration which influenced me in the selection of this subject.

Aside from this, the subject seemed to me a most suitable one for this occasion. The condition, whose treatment constitutes the subject of this paper, presents itself to the obstetrician and to the surgeon in slightly different lights—due to their respective points of view—there being just that shade of difference which is conveyed by the terms employed by each in referring to this condition. To the obstetrician it is pregnancy complicated by cancer; to the surgeon it is cancer complicated by pregnancy.

To the one, a normal, physiologic process assumes a new phase from the advent of a serious pathologic condition; to the other, a pathologic condition always grave, but by no means hopeless, is rendered far more serious by the existing physiologic condition. In the solution of the problem presented, the one considers what measures are demanded by the invasion of the pregnant uterus by a malignant neoplasm; the other, what modification of the procedures regularly indicated in the treatment of a malignant tumor of the cervix must be made when the invaded organ contains a more or less completely developed human being. From these considerations, therefore, it would be natural to predict that the obstetrician would be inclined to defer operative intervention to a later date than would the surgeon, and that the surgeon, on his part, would be disposed to grant

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to the interests of the unborn child less consideration than would the obstetrician.

But the gravity of these cases is such as to demand that in deciding upon the course of treatment each phase of the case should be accorded its proper significance, unbiased by the dicta of any specialty. The position in which I am now placed, as a surgeon addressing a society of obstetricians, seems to me peculiarly adapted to the endeavor to formulate for the handling of these cases certain general, impartial rules, in which full justice shall be done to the claims of both mother and child.

Ignoring the questions of etiology, pathology, symptomatology and diagnosis, let us assume that we have before us a case presenting the condition under discussion. What method of procedure are we to adopt when this fact has been ascertained?

Fortunately conception rarely takes place in the presence of cancer of the cervix of the uterus, the very nature of the disease almost precluding its occurrence. The onset of the cancer, then, is usually subsequent to conception. Since this lesion is most common in women who have borne one or more children, its earlier symptoms are quickly recognized by them as a departure from the course of former pregnancies; alarm is excited, and advice promptly sought. This results in an early detection of the malady.

Because the course of cancer of the cervix when complicated by pregnancy is more aggressive than otherwise, and for other cogent and obvious reasons, its management demands special consideration. In this consideration we are to take into account the precarious condition of the child, which rarely goes to the full term of intrauterine life; the constant dangers which beset the woman from hemorrhage and infection; and, finally, at labor, rents which may extend into the peritoneum and lead to fatal peritonitis, or, should the cervital canal be occluded or rendered incapable of even moderate dilatation, there is a possibility of rupture of the uterus, on the one hand, or, on the other, the impossibility of terminating the labor without resorting, at last, to surgical procedures. Nor should the grave question of the rights of the unborn child be overlooked.

From the above considerations it is manifest that the well established principles governing the treatment of cervical cancer in general must be modified when pregnancy exists. Our method of procedure will be influenced by a number of factors, chief among which are the extent of the lesion and the stage of pregnancy. On this basis we may divide these complicated cases into three groups, each having its own indications for treatment:

1. *Those cases in which the cancer appears before the termination of the fourth month of pregnancy and remains limited to the cervix.*

2. *Those in which the disease is discovered after the fourth month and remains limited to the cervix.*

3. *Those in which, regardless of the stage of pregnancy, the disease has extended to the vagina, and possibly neighboring structures, rendering the condition inoperable.*

With our cases thus classified, two prominent points are to be noted: (1) In the first and third groups the indications for treatment are apparent,

positive and constant, as contrasted with the second group, in which our method of procedure is variable and can be arrived at in each instance only after intelligent judgment, founded upon the consideration of numerous details. (2) While possessing the above point in common when contrasted with the second group, when compared with each other we find that our first and third groups are exactly opposite in the result sought and in the method of their management. For this reason the indications for treatment can best be brought out by departing from our order of enumeration and considering the third group immediately after the first.

The treatment of the first group of cases—*those in which the cancer appears before the termination of the fourth month of pregnancy and is limited to the cervix*—is apparent. At this early stage of pregnancy no thought of saving the life of the child can be entertained, and our sole consideration must be the welfare of the mother. We are, therefore, to proceed exactly as we would in dealing with a cervical cancer in a non-pregnant uterus. Hysterectomy is to be promptly performed, preferably by the vaginal route. Usually at this stage of pregnancy the uterus can be easily removed *per vaginam*. Should the caliber of the vagina, or the existence of some other obstacle, not admit of this method, total hysterectomy by the high route must be resorted to.

In the third group of cases—*those in which, regardless of the stage of pregnancy, the disease has extended to the vagina, and possibly neighboring structures, rendering the condition inoperable*—the indications, while equally as obvious as in the first group, lead to the adoption of exactly an opposite course and our efforts are entirely in behalf of the child. The disease having reached an inoperable stage, it is likely that the pregnancy is well advanced, except in those rare cases in which the cancer existed prior to conception. In either case the outlook for the mother is utterly hopeless. Our endeavor here must be to sustain her until the end of the term, if possible, or at least until the child has reached a viable age. During this time it is essential that she be kept under closest surveillance; for, in spite of our efforts, intervention may be demanded at any moment on account of exhaustion or hemorrhage or to forestall premature expulsion. If we are successful in carrying the woman to term, the delivery then by natural channel is fraught with such formidable dangers—laceration, hemorrhage, infection, peritonitis—that Cesarean section should always be resorted to as less perilous. Should delivery before term be unavoidable, on account of the exigencies above mentioned, Cesarean section should be performed where there is the slightest chance of securing a viable child; and it is also the only method to be adopted prior to such time, if it be apparent that the passage of even an undeveloped fetal head through the diseased cervix would end in fatal hemorrhage or poisoned wound of the peritoneum.

Our course in dealing with each of the two classes of cases thus far considered was clearly indicated by the conditions, and the unavoidable sacrifice of a life in each instance left us unhampered in our efforts to rescue the other—the mother in the first

group, the child in the third. Coming now to the treatment of the cases included in the second group of our classification,—*those in which the disease is discovered after the fourth month and remains limited to the cervix*—the conditions are more complicated and demand more serious consideration.

Here we recognize the possibility of accomplishing that most desirable object, the saving of the lives of both mother and child, and our efforts should be directed to that end. With these cases our course should be to keep the woman under the closest observation for a time and subject her to frequent examinations. If it is evident, after several inspections, that the disease is progressing with such rapidity that it will advance to an inoperable stage before the child has reached the period of viability, the possibility of saving both lives no longer exists, and that of the child must be sacrificed. Immediate ablation of the uterus is now demanded. In this class of cases the supravaginal route is chosen, and the operation is a Porro, continued to complete extirpation.

If, on the other hand, we find the disease to be progressing but slowly, so that it is plain that the mother's cause will not suffer materially by a few weeks' delay, postponement should be recommended. Should we thus feel justified in deferring operation until the completion of the seventh month, or later, if possible, Cesarean section, followed by complete removal of the uterus, may result in rescue of the child and at the same time accomplish for the mother all that could have been hoped for from an earlier operation. The necessity for the practice of this plan grows more imperative as the case approaches the end of the normal period of gestation, so that it becomes a plain duty to give to the child, after it has reached the time of probable viability, as many days of intrauterine life as may be consistent with the safety of the mother.

The responsibility in this class of cases is especially serious. Though at no period of gestation is the life of the fetus to be lightly considered, or sacrificed save from the conviction that the step is necessary for the rescue of the mother, yet the claims of the child upon us grow more pressing as fetal life advances. On this account the mother should, and usually will, take some hazard upon herself for the sake of her unborn offspring.

I wish to append a report of three cases of cancer of the cervix, complicated by pregnancy, successfully treated by operation.

Two of these were of the kind described in the first group of our classification and the other belonged to the second. They are briefly as follows :

CASE I. Mrs. P., referred by Dr. Devany, of Wakefield, Va. Consulted me July 29, 1897. Age, 26. Married seven years. Two children, youngest four years old. Dates her trouble from birth of last child. At this delivery a laceration was produced. Ever since has had more or less trouble, such as bearing down pains, backache, vaginal discharge, sometimes severe itching of external parts. Is now and then melancholy and nervous. All symptoms increased during menstruation.

Menstruation, which had been regular, did not appear the middle of May as expected. The ordinary signs of pregnancy developed in proper order. Believing herself pregnant she was mystified by a constant bloody discharge, on account of which she consulted Dr. Devany. Examination revealed a three and a half months' pregnancy. The cervix was occupied by carcinomatous growth involving nearly the entire vaginal portion. Microscopical findings verified the diagnosis and immediate operation was proposed.

Because of the extensive deposit abdominal pan-hysterectomy was advised, and accomplished on August 5, 1897. Her recovery was quick and easy and she left the Old Dominion Hospital on September 3, 1897.

A recent examination of this patient shows her in perfect health.

CASE NO. II. Referred by Dr. John T. Graham, of Wytheville, Va., and operated on in his private sanitorium.

Mrs. H. Age, 38 years. Has had five children and two abortions in nine years. Youngest child two years old. Consulted Dr. Graham June 17, 1899. He found a large bilateral laceration of the cervix which occurred at her first delivery. Had phlebitis in both legs after birth of last child. Dr. Graham found the cervix much enlarged with great eversion of lips. Menstruation had not been regular and was now several weeks overdue. Medicated tampons were used to reduce size of cervix with a view to performing trachelorrhaphy. Treatment availed nothing. Points of induration began to break down. Rapid ulceration took place and the true character of the disease was quickly made out. Cancer of the cervix was diagnosticated, and on July 16, I saw the patient with Dr. Graham, and on the following day complete abdominal hysterectomy was performed. The progress of her recovery was satisfactory until the fourth week after operation, when she developed phlebitis of her left leg and likewise suffered an acute congestion of the kidneys. Her recovery from this point on was tedious.

Finally all symptoms subsided and she is now entirely well.

CASE NO. III. Mrs. B., referred by Dr. J. P. Haller, of Pocahontas, Va., January 17, 1898.

Mrs. B. is 24 years old, married six years, one child five years old. Has suffered more or less ever since the birth of her baby.

Dr. Haller says of her in a letter dated January 9, 1898, "She has suffered greatly at menstrual periods. Menstruation ceased five and a half months ago, since uterus has steadily enlarged. Os hard to reach by examining finger. Through a speculum observed bilateral rent. Anterior lip much enlarged but smooth; posterior lip everted and covered with granulations which bleed on slightest touch." I examined this patient January 17 and found all that Dr. Haller has described. A diagnosis of cervical cancer complicated by pregnancy was given. This was verified by the microscope.

In view of the facts that her general health was superb, the disease was just beginning around the os and was limited to a very small area, and that the pregnancy had advanced to the middle of the sixth month, it was determined to postpone operation, hoping to rescue the child later on.

Dr. Haller kept a close watch on her until March 13, when she returned to the Old Dominion Hospital. It was plain that the disease had made advance, and as the child was considered viable, being now well on into the seventh month, Cesarean section followed by complete extirpation of the uterus was done on March 22. The child was extracted alive and received the rite of baptism immediately on its removal. It survived two and a half hours.

This patient made an unusually easy recovery and returned to her home four hundred miles away on May 3, 1898.

I had opportunity to examine her August 18, 1899, and found her absolutely well.

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